

AMENDMENT

IN THE CLAIMS:

Please amend claims 1-38 as follows:

Claim1 (currently amended) A method for selectively isolating or visualizing a target cell in vitro differentiated from an embryonic stem cell of human, monkey or mouse, ~~which comprises~~ comprising:

a) transferring an adenovirus vector encoding a first recombinant DNA in which a first promoter of a constitutive strong expression promoter, a gene having recombinase recognition sequences on both ends, and a fluorescence protein gene of a selective marker ~~of a target cell differentiated from an embryonic stem cell strongly expressed by the said first promoter~~ are arranged in this order from a 5' side into an undifferentiated embryonic stem cell;

b) inducing differentiation of said undifferentiated embryonic stem cell into which the first recombinant DNA is stably transferred;

c) ~~transferring and the first promoter makes the fluorescence protein gene express, and an adenovirus vector encoding~~ a second recombinant DNA in which a second promoter specifically expressing in a target cell differentiated from an embryonic stem cell, and a recombinase-expressing gene are arranged in this order from a 5' side ~~, respectively, with an adenovirus vector as an episomal form~~ into said embryonic stem cell during a process of differentiation inducement; and

d) isolating a target cell visualized by expression of a fluorescence protein by said first promoter and differentiated from an embryonic stem cell by flow cytometry.

Claim2(currently amended) ~~The method for selectively isolating or visualizing a target cell in vitro differentiated from an embryonic stem cell of human, monkey or mouse according to claim 1, wherein the recombinase recognition sequence is loxP.~~

A method for selectively isolating or visualizing a target cell in vitro differentiated from an embryonic stem cell of human, monkey or mouse comprising:

a) transferring an adenovirus vector encoding a first recombinant DNA in which a first promoter of a constitutive strong expression promoter, a gene having recombinase recognition sequences on both ends, and a fluorescence protein gene of a selective marker are arranged from a 5' side, and an adenovirus vector encoding a second recombinant DNA in which a second promoter specifically expressing in a target cell differentiated from an embryonic stem cell, and a recombinase-expressing gene are arranged from a 5' side respectively, into an embryonic stem cell during a process of differentiation inducement; and

b) isolating a target cell visualized by expression of a fluorescence protein by said first promoter and differentiated from an embryonic stem cell by flow cytometry.

Claim3(currently amended) The method for selectively isolating or visualizing a target cell in vitro differentiated from an embryonic stem cell of human, monkey or mouse according to claim 1 or 2, wherein the recombinase recognition sequence is loxP the first promoter is a constitutive strong expression promoter.

Claim4(currently amended) The method for selectively isolating or visualizing a target cell in vitro differentiated from an embryonic stem cell of human, monkey or mouse according to claim 3- 1 or 2, wherein the constitutive strong expression promoter is a CMV promoter or a CA a hybrid promoter of cytomegalovirus enhancer and chicken β actin promoter.

Claim5 (canceled)

Claim6(currently amended) The method for selectively isolating or visualizing a target cell in vitro differentiated from a embryonic stem cell of human, monkey or mouse according to claim 1 or 2, wherein the recombinase-expressing gene is a recombinase Cre-expressing gene.

Claim7(currently amended) The method for selectively isolating or visualizing a target cell in vitro differentiated from an embryonic stem cell of human, monkey or mouse according to claim 1 or 2, wherein the second promoter is a Nkx2.5 gene promoter ~~or an MHC gene promoter.~~

Claim 8-13(canceled)

Claim 14 (currently amended) An undifferentiated embryonic stem cell in which the adenovirus vector encoding the first recombinant DNA as defined in claim 1 is transferred.

Claim 15(currently amended) ~~The~~ An embryonic stem cell during a process of differentiation inducement in which the adenovirus vector encoding the first recombinant DNA and the adenovirus vector encoding the second recombinant DNA as defined in claim 1 are is transferred, respectively.

Claim 16(currently amended) ~~The~~ An embryonic stem cell during a process of differentiation inducement in which the adenovirus vector encoding the first

recombinant DNA and the adenovirus vector encoding the second recombinant DNA as defined in claim 2 are transferred, respectively.

Claim 17(currently amended) ~~The~~ An embryonic stem cell according to any one of claim 14 to 16, wherein the embryonic stem cell is derived from a mouse.

Claim 18(currently amended) An adenovirus vector encoding ~~for transferring a~~
~~gene, which comprises~~ the first recombinant DNA as defined in claim 1 or 2.

Claim 19-20(canceled)

Claim 21(currently amended) An adenovirus vector encoding ~~for transferring a~~
~~gene, which comprises~~ the second recombinant DNA as defined in claim 1 or 2.

Claim 22-23(canceled)

Claim 24(currently amended) A kit for isolation or visualization used in a method for selectively isolating or visualizing a target cell in vitro differentiated from an embryonic stem cell of human, monkey or mouse, which comprises the adenovirus vector encoding the first recombinant DNA ~~for transferring a gene~~ as defined in claim 1 or 2, and/or the adenovirus vector encoding the second recombinant DNA ~~for transferring a gene~~ as defined in claim 1 or 2.

Claim 25-26(canceled)

Claim 27(currently amended) The kit for isolation of visualization used in a

method for selectively isolating or visualizing a target cell in vitro differentiated from an embryonic stem cell of human, monkey or mouse, which comprises the undifferentiated embryonic stem cell in which the adenovirus vector encoding the first recombinant DNA is transferred as defined in claim 1, and the adenovirus vector encoding a second recombinant DNA for transferring a gene as defined in claim 1.

Claim 28-29(canceled)

Claim 30(currently amended) The kit for isolation or visualization used in a method for selectively isolating or visualizing a target cell in vitro differentiated from an embryonic stem cell of human, monkey or mouse, which comprises the embryonic stem cell during a process of differentiation inducement in which the adenovirus vector encoding the first recombinant DNA and the adenovirus vector encoding the second recombinant DNA are transferred respectively as defined in claim 1 or 2, ~~the adenovirus vector for transferring a gene as defined in claim 18, and the embryonic stem cell as defined in claim 15.~~

Claim 31-32(canceled)

Claim 33(currently amended) A cell obtained by the method for selectively isolating or visualizing a target cell in vitro differentiated from an embryonic stem cell of human, monkey or mouse as defined in claim 1 or 2.

Claim 34(original) The cell according to claim 33, wherein the cell is a cell obtained by using a Nkx2.5 gene promoter as the second promoter.

Claim 35(canceled)

Claim 36(original) A tissue, which comprises the cell as defined in claim 33.

Claim 37-38(canceled)